

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A UV radiation curable clearcoat coating composition ~~comprising~~ consisting essentially of:

at least one compound selected from A) and B) wherein:

A) comprises 0.1% to 99.9% by weight of one or more compounds selected from the group consisting of acrylate and methacrylate monomers having from 1 to 6 free-radically polymerizable groups per molecule and mixtures thereof; and

B) comprises 0.1 to 99.9% by weight of one or more compounds containing two or more ethylenically unsaturated, free radically polymerizable groups per molecule selected from the group consisting of urethane acrylates and methacrylates, polyester acrylates and methacrylates, melamine, acrylic amine, cellulose based acrylates and methacrylates and unsaturated polyesters and mixtures thereof;

and further comprising:

C) from 0.1 to 10.0 % by weight of one or more photoinitiators;

D) from 0 to 70% of compounds selected from the group consisting of solvents; and

E) from 1 to 15% of compounds selected from the group consisting of photosynergists, ultraviolet absorbers, hindered amine light stabilizers, adhesion promoters, flow aids, wetting aids, rheology modifiers and mixtures thereof;

wherein the coating is cured with a UV source providing a UV radiation with UVV:UVA of 1:1 or less, UVB:UVA of 1:1 or less, and UVC:UVA of 1:1 or less; further

wherein the coating is cured with an irradiance level between 0.01 and 200 mW/cm² for a time of between 1 second and 30 minutes to obtain a non-tacky surface.

2. (Original) A UV radiation curable clearcoat coating composition according to claim 1 wherein the compound A is selected from the group consisting of octyl-decyl monoacrylate, isobornyl monoacrylate, isodecyl monoacrylate, hexanediol diacrylate, tripropyleneglycol diacrylate, trimethylolpropane triacrylate, alkoxyated trimethylolpropane triacrylate, pentaerythritol triacrylate, pentaerythritol tetraacrylate, pentaerythritol pentaacrylate, dipentaerythritol hexaacrylate, and mixtures thereof above.

3. (Original) A UV radiation curable clearcoat coating composition according to claim 1 wherein compound B is selected from the group consisting of urethane acrylates, polyester acrylates and methacrylates, melamine, acrylic amine, cellulose based acrylates and methacrylates and unsaturated polyesters and mixtures thereof.

4. (Original) A UV radiation curable clearcoat composition according to claim 1 comprising compound A) in an amount from 1 to 50% by weight, compound B) in an amount from 30 to 80% by weight, and D) 20-50% by weight of volatile organic solvent.

5. (Original) A UV radiation curable clearcoat composition according to claim 1 wherein contains one or more photoinitiators curable by radical polymerization.

6. (Cancelled)

7. (Original) A UV radiation curable clearcoat coating composition according to claim 1 wherein the coating is cured with an irradiance level of between 1 and 100 mW/cm² for a time of between 30 seconds and 10 minutes to obtain a non-tacky surface.

8. (Cancelled)

9. (Previously Presented) A UV curable clear coating composition according to claim 1 wherein the coating is cured with a UV source providing substantially no UVC.

10. (Previously Presented) A UV curable clear coating composition according to claim 1 wherein the coating is cured with a UV source providing UV irradiation with UVV:UVA of 0.5:1 or less, UVB:UVA of 0.5:1 or less, and with substantially no UVC.

11. (Previously Presented) A UV curable clear coating composition according to claim 1 wherein the coating is cured with a UV source providing UV irradiation with UVV:UVA of 1:1 or less, and with substantially no UVB and UVC.

12. (Previously Presented) A UV curable clear coating composition according to claim 1 wherein the coating is cured with a UV source providing UV irradiation with UVA only, and with substantially no UVV, UVB, and UVC.

13.-23. (Cancelled)

24. (Previously Presented) A UV radiation curable clearcoat coating composition according to claim 1 wherein compound A comprises a mixture of octyl-decyl monoacrylate and pentaerythritol pentaacrylate.